UNITED STATES DISTRICT COURT
EASTERN DISTRICT OF MICHIGAN
NORTHERN DIVISION

FARM BUREAU MUTUAL INSURANCE COMPANY, as Subrogee of KITCHEN FARMS, INC.,

Plaintiff,

v.

1,4 GROUP, INC.,

Defendant.
_____/

Case No. 1:20-cv-12751

Honorable Thomas L. Ludington
United States District Judge

OPINION AND ORDER GRANTING DEFENDANT'S MOTION FOR SUMMARY JUDGMENT

This is a products-liability action stemming from a fire at a potato warehouse in Otsego County, allegedly ignited by an herbicide. Farm Bureau Mutual Insurance Company, as subrogee of the warehouse owner, alleges that herbicide distributor 1,4 Group, Inc. negligently failed to warn the third-party applicator about the herbicide's flammability.

1,4 Group has filed a motion for summary judgment, arguing (1) that it had no duty to warn about the herbicide's flammability, and (2) that even if it did, it satisfied that duty by providing the applicator with documents stating the herbicide's flashpoint, autoignition, and recommended application temperatures.

Because no reasonable juror could find that 1,4 Group negligently failed to warn the applicator, or that such failure could have proximately caused the fire, 1,4 Group's motion for summary judgment will be granted, and Farm Bureau's complaint will be dismissed.

I.

A.

1,4 Group is an Idaho-based company specializing in the development and distribution of herbicides. ECF No. 1 at PageID.9. In 2013, 1,4 Group assembled a team of researchers to develop a new solution for an old problem in agriculture: potato sprouting. *See* Forsythe Dep., ECF No. 32-2 at PageID.443. While in storage, potatoes sprout small, toxic growths that must be removed before human consumption. *See* Patent Application, ECF No. 32-5 at PageID.546. To keep potatoes from sprouting, warehousers apply a mixture of herbicides designed to keep the potatoes "dorman[t]." *Id.* But if the potatoes have already sprouted, warehousers often resort to certain "rescue treatments" that can "desiccate" (burn) the sprouts. *Id.*; ECF No. 32-2 at PageID.444.

When 1,4 Group began its research, the primary rescue treatment was clove oil, which was considered nonideal due to its "objectionable odor." ECF No. 32-5 at PageID.548. At some point, 1,4 Group learned of 1-octanol, an alcohol compound that had shown clinical success in burning potato sprouts. ECF No. 32-2 at PageID.443–44. After successful in-house and field testing, 1,4 Group registered 1-octanol with the Environmental Protection Agency and began selling it under the tradename "1,4ZAP." *Id.* at PageID.444.

1,4 Group also patented a method for treating potatoes with 1,4ZAP. *Id.* at PageID.452–54. Typically, potatoes are treated with herbicides through a process known as "thermofogging." ECF No. 32-5 at PageID.546. During thermofogging, the liquid herbicide is heated into an aerosol or "fog" and then injected into the warehouse. *See* Buc Report, ECF No. 32-10 at PageID.653. In Michigan, thermofogging is performed by licensed applicators using customized thermofoggers,[1]

[1] Thermofoggers are usually customized because there is no "mass produced machine that's specifically for potato fogging." ECF No. 32-8 at PageID.567

generally consisting of a heating element, an air blower, a chamber in which the hot air and herbicide are mixed, and a hose connectible to a "port" on the exterior of a warehouse. *Id.*; Riley Dep., ECF No. 32-8 at PageID.567–71. In 2014, 1,4 Group obtained a patent for thermofogging 1-octanol "at a temperature of about 400° F. to about 600° F." ECF No. 32-5 at PageID.550.

Despite registering 1-octanol for sale and patenting its use, 1,4 Group does not manufacture 1-octanol. ECF No. 32-2 at PageID.444–45. Instead, it purchases 1-octanol in bulk from Sasol, Inc., a South African manufacturer, and then repackages it for sale to applicators. *Id.* at PageID.444–45, 449.

1,4 Group also does not provide any of its own safety information. *Id.* at PageID.444–45. Instead, it provides applicators with the material safety data sheet (MSDS) prepared by Sasol.[2] *Id.* Among other things, the MSDS warns users that 1,4ZAP is "flammable" and informs them of 1,4ZAP's flashpoint temperature, 178–89°F (the lowest temperature at which it can ignite when exposed to an ignition source (e.g., an open flame)), and 1,4ZAP's autoignition temperature, 525°F (the lowest temperature at which it can ignite *without* exposure to an ignition source). *See* 1,4ZAP MSDS, ECF No. 30-11 at PageID.328–32.

1,4 Group does, however, provide applicators with its own "applications recommendations" sheet, which recommends an application temperature of "550F before chemical" and "440-450F after chemical." ECF No. 32-6 at PageID.551. The terms "before chemical" and "after chemical" refer to the thermofogger's temperature before and after the

[2] Under regulations issued by the Federal Occupational Safety and Health Administration, "chemical manufacturers and importers shall obtain or develop a safety data sheet for each hazardous chemical they produce or import." 29 C.F.R. § 1910.1200(g)(1). The purpose of these sheets is to ensure that "the hazards of all chemicals produced or imported are classified, and that information concerning the classified hazards is transmitted to employers and employees." *Id.* § 1910.1200(a)(1).

herbicide is mixed into it. ECF No. 32-8 at PageID.580–81. This distinction is necessary because the liquid herbicide is much cooler than the heated air inside the thermofogger, so when the two are mixed, the thermofogger's temperature falls dramatically. ECF No. 32-2 at PageID.469 (noting "about a hundred degree reduction" between before-chemical and after-chemical temperatures).

In this way, controlling the thermofogger's temperature is a crucial part of thermofogging. If the temperature is too low, then the herbicide will remain a liquid and not "fog" correctly. ECF No. 32-8 at PageID.581–82. But if the temperature is too high, then the herbicide might ignite. *Id.* at 605; ECF No. 32-5 at PageID.547.

B.

In November 2018, Kitchen Farms hired its longtime applicator, William Riley, to apply 1,4ZAP and other herbicides at one of its potato warehouses. ECF No. 32-8 at PageID.575–76. A licensed applicator with 30 years of experience, Riley had been servicing Kitchen Farms and other potato processors for decades. *Id.* Although this was the first time that Kitchen Farms had asked him to apply 1,4ZAP, Riley was familiar with the chemical and had applied it at other facilities on 15 to 20 occasions. *Id.* at PageID.616. Riley had also spoken with 1,4 Group's regional sales manager about 1,4ZAP shortly after it was brought to market. *Id.* at PageID.605–06. Riley was aware of 1,4ZAP's flashpoint, autoignition, and recommended application temperatures, and he knew that those temperatures were lower than 1,4 Group's other products. *Id.* at PageID.604–07; Bergman Dep., ECF No. 32-3 at PageID.519–20.

On the day of the fire, Riley and his thermofogger were stationed on the warehouse's western wall, while two of his employees were on the eastern wall. ECF No. 32-8 at PageID.589–90, 594. The warehouse's thermofogging ports were located approximately 25 feet above the

ground, just a few feet below the ceiling insulation. *See* Jenkinson Report, ECF No. 32-9 at PageID.640–43; ECF No. 32-2 at PageID.464.

At 9:20 AM, Riley began thermofogging an unrelated 1,4 Group product, 1,4SIGHT, at a before-chemical temperature of 820°F. *See* Riley Worksheet, ECF No. 30-12 at PageID.336. At 11:50 AM, he turned the thermofogger's temperature down to 625°F, waited "two minutes for [the machine] to cool down," and then switched to 1,4ZAP. ECF No. 32-8 at PageID.591.

Because Riley's thermofogger did not have an after-chemical temperature probe, there is no record of what the after-chemical temperature was when he started injecting 1,4ZAP into the warehouse.[3] *Id.* at PageID.611–12. Even so, Riley testified that the after-chemical temperature on his thermofogger tended to be several-hundred degrees lower than the before-chemical temperature.[4] *Id.* at 608 ("If I take my thermal imaging device, and I put it on the pipe, . . . the outside of the pipe coming right out of the machine is going to be around 300 degrees at 800."). So, by Riley's estimation, the after-chemical temperature "would [have] be[en] [lower] than 300 to 330"—substantially lower than both the recommended after-chemical temperature (440 to 450°F) and the autoignition temperature (525°F). *Id.* at PageID.622.

[3] Every witness asked about after-chemical temperature probes agreed that applicators need them to accurately measure the after-chemical temperature. *See* Buc Report, ECF No. 32-10 at PageID.653 ("Temperature is monitored with two thermocouples: one clsoeto the combustion chamber, the second where the chemical is injected"); Ornstein Report, ECF No. ECF No. 32-11 at PageID.695 (opining that "[t]he thermofogger that Mr. Riley was using was deficient" because it "did not have a thermocouple installed in the aerosol discharge"); ECF No. 32-3 at PageID.526 ("Q: If there was no thermocouple to measure the temperature after the chemical, is there any way to accurately tell . . . what temperature the chemical is being applied at . . . ? A: No. It's a—it's very hard."); ECF No. 32-8 at PageID.621 (claiming that "most of [his machines] had two [temperature] probes" but the thermofogger he was using at Kitchen Farms did not because it was "[his] oldest machine").

[4] Neither side seems to have tested Riley's thermofogger or otherwise verified his claims regarding its before- and after-chemical temperatures.

Yet about 15 minutes after switching to 1,4ZAP, Riley noticed a "black spot" below the port, roughly the size of his hand. *Id.* at PageID.615. He immediately turned off the thermofogger, removed the hose, and climbed up to the port. *Id.* Although he could not see any flames, he smelled smoke and called the fire department. *Id.* at 598, 616.

Firefighters arrived sometime later and successfully doused the fire. ECF No. 32-9 at PageID.636. According to Farm Bureau's experts, the fire likely started in the thermofogger and then travelled through the hose and into the warehouse. *Id.* at PageID.638–39; ECF No. 32-10 at PageID.656. Based on photos taken at the scene, the flames caused direct damage to only the warehouse port, the ceiling insulation above, and the potatoes stored below. ECF No. 32-9 at PageID.642–644. Even so, Kitchen Farms had to dispose of all the potatoes in the warehouse, causing nearly three-million dollars in loss. ECF No. 1 at PageID.10.

C.

After indemnifying Kitchen Farms, Farm Bureau brought this action against 1,4 Group, alleging one count of common-law negligence. *See* ECF No. 1 at PageID.10–11. According to Farm Bureau, 1,4 Group breached its duty of care by "failing to warn or instruct users of [1,4ZAP] of the fire risk posed by [it]."[5] *Id.* at PageID.11.

1,4 Group has filed a motion for summary judgment on two grounds. First, 1,4 Group argues that it did not have a duty to warn Riley about 1,4ZAP's flammability not only because he was a "sophisticated user" of 1,4ZAP, but also because 1,4ZAP's flammability would have been obvious to the reasonably prudent user. ECF No. 30 at PageID.193–98. Second, 1,4 Group argues

[5] Farm Bureau also alleged that 1,4 Group was negligent for "designing the 1,4 Zap using 1-octanol." ECF No. 1 at PageID.10–11. Farm Bureau has apparently abandoned that design theory, given that it goes unmentioned in Farm Bureau's summary-judgment briefing. *See generally* ECF No. 32.

that, even if it had a duty to warn Riley, it satisfied that duty by providing him with the MSDS and recommendations sheet, which together advised him of 1,4ZAP's flashpoint, autoignition, and recommended application temperatures. *Id.* In other words, 1,4 Group contends that the proximate cause of the fire was not a lack of warnings but a lack of control over the thermofogger's temperature.[6] *See id.* at PageID.197 (arguing that Riley "had no way of telling what the 'after chemical' temperature of the fog going into the building [was] since his machine did not have a second thermo coupler").

In response, Farm Bureau argues that Riley was too inexperienced with 1,4ZAP to be a sophisticated user, and that 1,4ZAP's flammability was not a matter of common knowledge or otherwise obvious. ECF No. 32 at PageID.428. Farm Bureau adds that the MSDS and recommendations sheet provided inadequate warnings. *Id.* at PageID.425–27.

Having carefully reviewed the parties' briefing, this Court finds that a hearing is unnecessary and will address 1,4 Group's motion on the papers. *See* E.D. Mich. LR 7.1(f)(2).

II.

A motion for summary judgment should be granted if the "movant shows that there is no genuine dispute as to any material fact and the movant is entitled to judgment as a matter of law." FED. R. CIV. P. 56(a). The moving party has the initial burden of identifying where to look in the record for evidence "which it believes demonstrate the absence of a genuine issue of material fact." *Celotex Corp. v. Catrett*, 477 U.S. 317, 323 (1986). The burden then shifts to the opposing party, who must set out specific facts showing "a genuine issue for trial." *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 250 (1986) (citation omitted). The court must view the evidence and draw all

[6] 1,4 Group has also filed a notice of nonparty fault, claiming that Riley's company, Gun Valley Agri Chemicals, Inc., is responsible for "some or all of [Kitchen Farm's] damages." ECF No. 6 at PageID.34.

reasonable inferences in favor of the non-movant and determine "whether the evidence presents a sufficient disagreement to require submission to a jury or whether it is so one-sided that one party must prevail as a matter of law." *Id.* at 251–52.

III.

Despite Farm Bureau's reliance on the term "negligence" in its complaint, this action is governed by Michigan's products-liability statute, because it is based on "damage to property caused by or resulting from the production of a product." MICH. COMP. LAWS § 600.2945(h); *id.* § 600.2945(i) (defining "production" as "manufacture, construction, design, formulation, development of standards, preparation, processing, assembly, inspection, testing, listing, certifying, warning, instructing, marketing, selling, advertising, packaging, or labeling"); *see also Att'y Gen. v. Merck Sharp & Dohme Corp.*, 807 N.W.2d 343, 347 (Mich. Ct. App. 2011) ("[A] court is not bound by a party's choice of labels.").

As relevant here, Michigan's products-liability statute provides:

> [A] seller other than a manufacturer is not liable for harm allegedly caused by the product unless either of the following is true:
>
> (a) The seller failed to exercise reasonable care, including breach of any implied warranty, with respect to the product and that failure was a proximate cause of the person's injuries.
>
> (b) The seller made an express warranty as to the product, the product failed to conform to the warranty, and the failure to conform to the warranty was a proximate cause of the person's harm.

MICH. COMP. LAWS § 600.2947(6).

It is undisputed that 1,4 Group qualifies as a "seller other than a manufacturer." *See* ECF Nos. 30 at PageID.191–93; 32 at PageID.421–22. And Farm Bureau does not allege that 1,4 Group made any express warranty about 1,4ZAP. *See generally* ECF No. 1. Accordingly, to prevail in this case, Farm Bureau must show that 1,4 Group "failed to exercise reasonable care . . . with respect to [1,4ZAP] and that failure was a proximate cause of the [fire]." MICH. COMP. LAWS §

600.2947(6). In other words, Farm Bureau must demonstrate that 1,4 Group was "independently negligen[t]." *See Konstantinov v. Findlay Ford Lincoln Mercury*, 619 F. Supp. 2d 326, 332 (E.D. Mich. 2008).

1,4 Group argues that it could not have been negligent because it had no duty to warn Riley about the risk that 1,4ZAP would ignite during application. ECF No. 30 at PageID.193–98. 1,4 Group adds that, even if it had a duty to warn, it satisfied that duty by providing Riley with the MSDS and recommendations sheet. *Id.*

Each argument is considered below.

A.

Because Farm Bureau must demonstrate that 1,4 Group was "independently negligen[t]," *Konstantinov*, 619 F. Supp. 2d at 332, the threshold question is whether 1,4 Group owed a legal duty to warn Riley, *see Riddle v. McLouth Steel Prods.*, 485 N.W.2d 676, 681 (Mich. 1992) (noting that the existence of a legal duty is the "threshold question" in negligence cases). 1,4 Group argues that it had no duty to warn Riley because (1) he was a sophisticated user of 1,4ZAP, and (2) 1,4ZAP's flammability would have been obvious to a reasonably prudent user. *See* ECF No. 30 at PageID.193–98.

In Michigan, duty is a question of law decided by the court. *Antcliff v. State Emps. Credit Union*, 327 N.W.2d 814, 821 (Mich. 1982). Generally, "[m]anufacturers have a duty to warn purchasers or users of dangers associated with the intended use or reasonably foreseeable misuse of their products." *Glittenberg v. Doughboy Recreational Indus.*, 491 N.W.2d 208, 211 (Mich. 1992). There are two exceptions to this rule: (1) when the danger in question "should be obvious to a reasonably prudent product user," MICH. COMP. LAWS § 600.2948(2); and (2) when "the product is provided for use by a sophisticated user," *id.* § 600.2947(4).

Here, it is undisputed that 1,4 Group knew that 1,4ZAP could ignite during thermofogging, even if the likelihood of ignition was very low. During his deposition, the owner of 1,4 Group acknowledged that 1,4ZAP, "[like] any alcohol[,] is flammable in the right conditions." ECF No. 32-2 at PageID.445. Similarly, 1,4 Group's regional sales manager, who had previously worked with Riley, testified that he discussed 1,4ZAP's "flashpoint, boiling points, and flammability" with applicators during field testing. ECF No. 32-3 at PageID.489.

Therefore, 1,4 Group had a duty to warn Riley that 1,4ZAP could ignite during thermofogging unless either (1) that risk would have been obvious to the reasonably prudent user or (2) Riley was a sophisticated user. *See* MICH. COMP. LAWS §§ 600.2947(4), 600.2948(2).

i.

1,4 Group's assertion that 1,4ZAP's flammability was "obvious" is unsupported by the record. To determine whether a product-related danger is obvious, courts "focu[s] [on] the typical user's perception and knowledge and whether the relevant condition or feature that creates the danger associated with use is fully apparent, widely known, commonly recognized, and anticipated by the ordinary user or consumer." *Glittenberg*, 491 N.W.2d at 213. A danger is "obvious" if it is "is visible, . . . is a well known danger, or . . . is discernible by casual inspection." *Id.* at 214 (quoting 3 AMERICAN LAW OF PRODUCTS LIABILITY § 33:26 (3rd ed.))

Here, there is no evidence that a reasonably prudent user would know, by casual inspection or common experience, that 1,4ZAP could ignite during thermofogging. This is unsurprising given that 1,4ZAP is not an ordinary consumer good but an herbicide primarily (if not exclusively) marketed and sold to licensed applicators as a "rescue treatment" for sprouting potatoes. *See* ECF No. 32-3 at PageID.483–84, 517. And even if it were common knowledge that 1,4ZAP consists of

1-octanol, there is no reason to think that the reasonably prudent consumer would know all of 1-octanol's chemical properties.

ii.

Similarly, there is at least a genuine dispute of fact as to whether Riley qualifies as a sophisticated user.

A person qualifies as a sophisticated user if, "by virtue of training, experience, a profession, or legal obligations, [she] is or is generally expected to be knowledgeable about a product's properties, including a potential hazard or adverse effect." MICH. COMP. LAWS § 600.2945(j).

The Michigan Court of Appeals decision in *Heaton v. Benton Construction Co.* is instructive. 780 N.W.2d 618 (Mich. Ct. App. 2009) (per curiam). In *Heaton*, two homeowners sued a construction company and homebuilder after their home's foundation shifted during construction. *Id.* at 620–21. The construction company, which supplied the home's precast concrete, argued that it had no duty to warn the homebuilder about the need for shear walls because he was a sophisticated user. *Id.* at 622. The Michigan Court of Appeals disagreed, explaining that the homebuilder, despite being licensed, had little experience building houses, had no experience with the concrete foundation at issue, and relied extensively on "various subcontractors and engineers for their expertise." *Id.* at 623–24.

Here, like the homebuilder in *Heaton*, Riley had limited experience with 1,4ZAP and relied extensively on 1,4 Group to understand 1,4ZAP's chemical properties. Indeed, everything that Riley knows about 1,4ZAP he learned from 1,4 Group-supplied materials and conversations with 1,4 Group's regional sales manager. *See* ECF No. 32-8 at PageID.604–05. Additionally, Riley did not receive any training on autoignition as part of his licensing. *Id.* at PageID.584. So, despite

Riley's general experience with herbicides, a reasonable juror could find that he is not a sophisticated user of 1,4ZAP.

iii.

In summary, because Riley was not a sophisticated user of 1,4ZAP and the risks of 1,4ZAP would not have been obvious to a reasonably prudent user, 1,4 Group had a duty to warn Riley that 1,4ZAP was flammable and could ignite during thermofogging.

B.

The next issue is whether a reasonable juror could find that 1,4 Group breached its duty to warn Riley and, if so, whether that breach proximately caused the fire. *See* MICH. COMP. LAWS § 600.2947(6).

The adequacy of warnings and whether they proximately caused a loss are questions of fact, typically left to the jury. *See Allen v. Owens-Corning Fiberglas Corp.*, 571 N.W.2d 530, 533 (Mich. Ct. App. 1997) (per curiam); *Dunn v. Lederle Lab'ys*, 328 N.W.2d 576, 580 (Mich. Ct. App. 1982). Even so, a court may resolve these and other questions of fact at the summary-judgment stage if the evidence is such that no reasonable mind could disagree on the result. *See Ferlito v. Johnson & Johnson Prods.*, 771 F. Supp. 196, 200 (E.D. Mich. 1991) (granting motion for judgment as a matter of law because "no reasonable jury could find that JJP's failure to warn of the flammability of cotton batting was a proximate cause of plaintiffs' injuries"), *aff'd sub nom. Ferlito v. Johnson & Johnson*, 983 F.2d 1066 (6th Cir. 1992) (unpublished table decision).

1,4 Group argues that it satisfied its duty to warn Riley by providing him with the MSDS and recommendations sheet, which together informed him of 1,4ZAP's flashpoint, autoignition, and recommended application temperatures. *See* ECF No. at PageID.195–96. 1,4 Group also notes

that its regional sales manager, John Bergman, discussed these temperatures with Riley shortly after 1,4ZAP was brought to market in 2015. *Id.* Although Riley testified that "no one specifically said, '[D]o not run over this temperature,'" he was nonetheless aware of 1,4ZAP's flashpoint and autoignition temperature, and knew that those temperatures had been provided because the chemical "c[ould] combust." ECF No. 32-8 at PageID.605–07 (internal quotation marks added).

In response, Farm Bureau contends that the MSDS and recommendations sheet were inadequate because they did not "warn the user that application at 625F creates a fire hazard." ECF No. 32 at PageID.427. Farm Bureau's argument is consistent with the opinion of its liability expert, Dr. Elizabeth Buc, who claims that "[t]he fire hazards associated with [1,4ZAP] were not communicated to the applicators," and that "[Riley] did not know the thermofogger temperature had to be controlled to prevent the 1-octanol from igniting." ECF No. 32-10 at PageID.656.

Farm Bureau's argument is unconvincing for several reasons.

i.

First, though 1,4 Group knew that 1,4ZAP could ignite during thermofogging, there is no evidence that 1,4 Group knew, or reasonably should have known, that thermofogging 1,4ZAP at a before-chemical temperature of 625°F posed an unreasonable risk of autoignition.

As previously noted, there is no "mass produced machine that's specifically for potato fogging," so applicators like Riley must build or adapt their thermofoggers from other fogging equipment.[7] ECF Nos. 32-8 at PageID.567; 32-3 at PageID.524 (noting that "there's no one uniform machine that the applicators use or purchase"). As a result, thermofogger efficiency varies substantially from machine to machine. *See* ECF Nos. 32-8 at PageID.580 (noting that "every

[7] Here, Riley was using a thermofogger that he adapted from a mosquito fogger. ECF No. 32-8 at PageID.567.

machine runs a little differently"); 32-3 at PageID.526 (noting operational differences due to "some differences of equipment").

Apparently recognizing this variation, 1,4 Group enlisted a group of applicators to test 1,4ZAP in the field. *See* ECF No. 32-3 at PageID.488. The test group used before-chemical temperatures ranging from 600°F to 714°F. ECF No. 32-3 at PageID.506. Despite the high temperatures, no fires were recorded. *Id.* Indeed, according to 1,4 Group's witnesses, the fire at Kitchen Farms was the first instance of autoignition in 1,4ZAP's history. *Id.* at PageID.495.

Based on this evidence, no reasonable juror could infer that 1,4 Group knew or reasonably should have known that 1,4ZAP posed an unreasonable risk of igniting at a before-chemical temperature of 625°F. This is important because, under Michigan law, a manufacturer or seller cannot be held liable for failing to warn about an unknown risk. *See* MICH. COMP. LAWS § 600.2948(3) ("[A] manufacturer or seller is not liable unless the plaintiff proves that the manufacturer knew or should have known about the risk of harm based on the scientific, technical, or medical information reasonably available at the time . . . ."); *Konstantinov v. Findlay Ford Lincoln Mercury*, 619 F. Supp. 2d 326, 332 (E.D. Mich. 2008) ("To establish a seller's 'independent negligence' under MCL § 600.2947(6), plaintiff must show that the seller knew or had reason to know the product was defective.").

ii.

Second, Dr. Buc's claim that "[t]he fire hazards associated with [1,4ZAP] were not communicated to the applicators" is irreconcilable with the record. ECF No. 32-10 at PageID.656.

As previously noted, the MSDS plainly designates 1,4ZAP as a "flammable" and "combustible liquid," provides the chemical's flashpoint and autoignition temperatures, and warns users to avoid contact with ignition sources. *See* ECF No. 30-11 at PageID.329 ("Combustible

liquid"); *id.* ("Keep away from open flames/hot surfaces – No smoking"); *id.* at PageID.330 ("May ignite by open flame."); *id.* at PageID.332 (providing flashpoint and autoignition temperatures); *id.* at PageID.334 ("Empty containers retain product residue (liquid and/or vapor) and can be dangerous. DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE SUCH CONTAINERS TO HE[A]T, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES; THEY MAY EXPLODE AND CAUSE INJURY OR DEATH.").

Further, during his deposition, Riley testified that he was aware of 1,4ZAP's flashpoint and autoignition temperatures, that he knew those temperatures were lower than the temperatures for 1,4 Group's other products, and that he knew that 1,4ZAP could combust. ECF No. 32-8 at PageID.604–06.

Rather than addressing any of this evidence, Dr. Buc's report instead focuses on the contents of 1,4 Group's patent application. In short, Dr. Buc claims that 1,4 Group should have told applicators what it told the patent office: "thermofogging of higher alcohols can be performed at temperatures not exceeding about 600° F." ECF No. 32-10 at PageID.655–56 (quoting ECF No. 32-5 at PageID.547). Her assumption seems to be that if 1,4 Group had communicated this information to applicators, then Riley would have thermofogged 1,4ZAP at a lower temperature and avoided the fire. *Id.*

The problem for Dr. Buc's theory is that 1,4 Group *did* recommend an application temperature, and its recommended temperature was far lower than the 600°F limit mentioned in the patent. *See* ECF No. 32-6 at PageID.551 (recommending "550F before chemical" and "440-450F after chemical"). Dr. Buc does not explain why that recommendation was inadequate, why Riley would have responded differently to another recommendation, or why the 600°F estimate—passingly mentioned in 1,4 Group's patent application—is scientifically reliable.

Although a court may not weigh evidence at summary judgment, *Moran v. Al Basit LLC*, 788 F.3d 201, 204 (6th Cir. 2015), it also may not rely on inadmissible evidence, *Alexander v. CareSource*, 576 F.3d 551, 558 (6th Cir. 2009) (noting that "a summary judgment opponent [must] make her case with a showing of facts that can be established by evidence that will be admissible at trial"). Under Federal Rule of Evidence 702, expert testimony is inadmissible if it based on facts that "contradict the evidence." *Greenwell v. Boatwright*, 184 F.3d 492, 497 (6th Cir. 1999); *McLean v. 988011 Ont., Ltd.*, 224 F.3d 797, 801 (6th Cir. 2000) ("An expert's opinion, where based on assumed facts, must find some support for those assumptions in the record."); *see also* FED. R. EVID. 702(b) (providing that expert testimony must be "based on sufficient facts or data"). Because Dr. Buc's testimony regarding the warnings provided to applicators is contradicted by the evidence, it may not be considered for purposes of summary judgment.[8]

iii.

Third, even if 1,4 Group breached its duty to warn, there is no evidence that such breach was "a proximate cause of the [fire]." *See* MICH. COMP. LAWS § 600.2947(6).

In Michigan, "proving proximate cause actually entails proof of two separate elements: (1) cause in fact, and (2) legal cause, also known as 'proximate cause.'" *Skinner v. Square D Co.*, 516 N.W.2d 475, 479 (Mich. 1994). "The cause in fact element generally requires showing that 'but for' the defendant's actions, the plaintiff's injury would not have occurred." *Id.* By contrast, the element of legal cause "normally involves examining the foreseeability of consequences, and whether a defendant should be held legally responsible for such consequences." *Id.* "In most

[8] Even if Dr. Buc's testimony was admissible, it would be insufficient to withstand summary judgment, because it is "blatantly contradicted by the record." *Scott v. Harris*, 550 U.S. 372, 380 (2007) (reversing court of appeals' reliance on plaintiff's version of events at summary judgment because it was "so utterly discredited by the record that no reasonable jury could have believed him").

failure-to-warn cases, proximate cause is not established absent a showing that the [user] would have altered his behavior in response to a warning." *Allen v. Owens-Corning Fiberglas Corp.*, 571 N.W.2d 530, 535 (Mich. Ct. App. 1997) (per curiam).

Here, there is no reasonable basis for a jury to infer that Riley would have altered his behavior in response to a different warning. Riley knew (1) that 1,4ZAP's recommended before-chemical temperature was 550°F, ECF No. 32-8 at PageID.580–81, 604–05; (2) that 1,4ZAP's autoignition temperature was 525°F, *id.* at PageID.583; ECF No. 32-3 at PageID.519; and (3) that 1,4ZAP posed a risk of combustion, ECF No. 32-8 at PageID.604–06. Still, Riley chose to use a before-chemical temperature of 625°F based on his experience with the thermofogger in question. ECF No. 32-8 at PageID.580 (claiming that 1,4 Group's recommendations was not "[set] in stone . . . because everybody's machines run a little bit differently"). Farm Bureau has not produced any evidence suggesting that a different warning would have produced a different response. Nor has it produced any alternative warnings that it argues should have been used.

Farm Bureau's theory is problematic for another reason, as well. Farm Bureau's basic assumption is that if Riley had used a lower before-chemical temperature, then the fire would have been avoided. The evidence for that assumption, however, is rather scarce. Although both Farm Bureau experts agree that the fire originated in Riley's thermofogger, *see* ECF Nos. 32-9 at PageID.638–39; 32-10 at PageID.656, neither has reconstructed Riley's thermofogger or otherwise attempted to recreate the precise conditions of the fire.[9] Moreover, Riley's undisputed

[9] According to her report, Dr. Buc demonstrated 1,4ZAP's flammability by exposing it to an open flame in a mosquito fogger. ECF No. 32-10 at PageID.655. Yet demonstrating that 1,4ZAP will ignite when exposed to an open flame is not the same as demonstrating that it will *autoignite* when thermfogged at a before-chemical temperature of 625°F.

testimony is that the after-chemical temperature "would [have] be[en] [lower] than 300 to 330"—substantially lower than both the recommended after-chemical temperature (440 to 450°F) and the autoignition temperature (525°F). ECF No. 32-8 at PageID.622.

This leaves several possible explanations, none of which involve 1,4 Group. Perhaps Riley misjudged how low the after-chemical temperature would be. *See* ECF No. 32-3 at PageID.526 (explaining that it is "very hard" to measure the after-chemical temperature without an after-chemical temperature probe). Perhaps Riley miscalculated the amount of time that his thermofogger needed to cool from 820 to 625°F. *See* ECF No. 32-8 at PageID.591 (claiming that his thermofogger needed "approximately two minutes" to cool down). Perhaps Riley mistakenly kept the temperature too high and now, three years later, misremembers what happened.

The goal at this stage is not to weigh these explanations but to determine whether there is enough evidence to support the explanation advanced by Farm Bureau. *See Clemons v. Couch*, 3 F.4th 897, 902 (6th Cir. 2021) ("A genuine dispute of material fact exists 'if the evidence is such that a *reasonable jury* could return a verdict for the nonmoving party.'" (emphasis added) (quoting *Peffer v. Stephens*, 880 F.3d 256, 262 (6th Cir. 2018))). As the Michigan Supreme Court has explained, though "plaintiffs may show causation circumstantially, . . . a plaintiff's circumstantial proof must facilitate reasonable inferences of causation, not mere speculation." *Skinner v. Square D Co.*, 516 N.W.2d 475, 480 (Mich. 1994). Accordingly, "causation theories that are mere possibilities or, at most, equally as probable as other theories do not justify denying defendant's motion for summary judgment." *Id.* at 484.

Here, despite Farm Bureau's arguments to the contrary, there is simply not enough evidence for Farm Bureau's theory to graduate from "mere speculation" to "reasonable inference." *Id.* Rather than producing admissible evidence that Riley would have altered his behavior, or that

a lower before-chemical temperature would have avoided the fire, Farm Bureau relies on assertions and conjecture untethered from the record. For this reason, independent of any other reason, Farm Bureau's complaint must be dismissed.

iv.

In summary, 1,4 Group's motion for summary judgment will be granted because no reasonable jury could find that 1,4 Group breached its duty to warn Riley, or that such breach could have proximately caused the fire at Kitchen Farms.

C.

As a final matter, this Court will briefly address an alternative theory of liability that Farm Bureau raised for the first time in its summary-judgment briefing. Although the complaint is couched in terms of negligent design and failure to warn, *see* ECF No. 1 at PageID.10–11, Farm Bureau now claims that 1,4 Group was negligent because it "did not exercise due care in determining the conditions that cause the chemical to ignite," ECF No. 32 at PageID.422.

Farm Bureau does not, however, cite any authority suggesting that a non-manufacturer seller may be held liable for failing to conduct independent safety testing. Nor does it explain how such testing could have been conducted here, given that, as previously discussed, thermofoggers vary considerably in operation. *See* discussion *supra* Section III.B.i.

In effect, Farm Bureau seeks to hold 1,4 Group liable for not developing a standardized method for safely thermofogging 1-octanol—a method that Farm Bureau itself has not attempted to illustrate or explain. Although the question of whether 1,4 Group should have conducted independent safety testing is ultimately a question of reasonableness, properly decided by a jury, *see Dunn v. Lederle Lab'ys*, 328 N.W.2d 576, 580 (Mich. Ct. App. 1982), Farm Bureau must produce some admissible evidence in support of its theory, *Alexander v. CareSource*, 576 F.3d

551, 558 (6th Cir. 2009). Because Farm Bureau has not produced any such evidence, 1,4 Group's motion for summary judgment must be granted.

IV.

Accordingly, it is **ORDERED** that Defendant's Motion for Summary Judgment, ECF No. 30, is **GRANTED**.

Further, it is **ORDERED** that Plaintiff's Complaint, ECF No. 1, is **DISMISSED**.

Dated: April 27, 2022

s/Thomas L. Ludington
THOMAS L. LUDINGTON
United States District Judge